

PATENT
454313-2330**REMARKS****I. INTRODUCTION**

Reconsideration and withdrawal of the rejections of this application and consideration and entry of this paper are respectfully requested in view of the amendments and remarks herewith, and matters discussed during the July 18, 2002 interview (during which a demonstration of the invention was provided) which place the application in condition for allowance, or in better condition for appeal.

This invention provides improved paste formulations suitable for pharmaceutical and veterinary use containing fumed silica, as a thickening agent, and a viscosity modifier to increase the viscosity of the paste. It has been surprisingly found that the addition of a viscosity modifier increases the viscosity of the paste, while reducing the total amount of fumed silica. Moreover, the inventive formulations exhibit good physical stability over the shelf life and retain good chemical integrity, texture, consistency and viscosity over a wide temperature range used for a wide range of therapeutic agents. This invention also provides for methods for treating various disease states using these formulations.

Further, the claims employ the terms "consisting essentially of" or "consists essentially of". These terms are used in the manner ascribed to them in the patent case law. They exclude elements that are found in the prior art or that affect a basic or novel characteristic of the invention. *See, e.g., In re Garnero*, 162 U.S.P.Q. 221 (C.C.P.A. 1969); *Ex parte Shepherd*, 185 U.S.P.Q. 480 (BOPA 1974); *Ex parte Hutchins*, 157 U.S.P.Q. 167 (BOPA 1967); *see also Zeigler v. Phillips Petroleum Co.*, 177 U.S.P.Q. 481 (5th Cir. 1973). Thus, these terms provide patentability to the claimed invention.

II. STATUS OF CLAIMS AND FORMAL MATTERS

Claims 50-64 are pending by this paper. Claims 50-64 are added without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents. No new matter is added.

It is submitted that the claims, herewith and as originally presented, are patentably distinct over the prior art cited by the Examiner, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. The additions to the claims, as presented herein, are not made for purposes of patentability within the meaning of 35 U.S.C. §§§§ 101, 102, 103 or

PATENT
454313-2330

112. Rather, these amendments and additions are made simply for clarification and to round out the scope of protection to which Applicants are entitled. Support is found throughout the specification and from the originally pending claims. And, in view of the restriction requirement, the claims presented herewith do not represent any narrowing of the claims. Hence, there should be no estoppel by this paper.

III. THE REJECTION UNDER SECTION 103 ARE OVERCOME

Claims 1, 4-7, 11-13 and 45 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,698,584 to Black et al., and U.S. Patent Nos. 5,981,576 and 6,020,343 to Belley et al. taken with U.S. Patent No. 6,017,520 to Synodis et al., U.S. Patent No. 5,880,076 to Vermeer et al., U.S. Patent No. 5,266,304 to Baffelli et al. and U.S. Patent No. 5,958,458 to Norling et al. The rejection is respectfully traversed. None of the numerous documents, either alone or in combination, teaches, suggests or discloses the present invention.

Applicant's invention is directed to, *inter alia*, an improved paste formulation suitable for pharmaceutical and veterinary use containing fumed silica, as a thickening agent, and a viscosity modifier to increase the viscosity of the paste. It has been surprisingly found that the addition of a viscosity modifier increases the viscosity of the paste while reducing the total amount of fumed silica.

Moreover, the inventive formulations exhibit good physical stability over the shelf life of the product and retains good chemical integrity, texture, consistency and viscosity over a wide temperature range. *

Further, the inventive paste formulations may be used for a wide range of therapeutic agents.

Neither of the cited documents suggests the superior viscosity and stability and ease of preparation that results from the combination of fumed silica and the viscosity modifier, as evidenced by the presentation during the interview.

As the Office Action admits "The references [Black and Belley] do not teach to use specifically fumed silica, the specific colorant TiO₂, specifically PEG 3000 . . ." (6/14/01 Office Action at 6). In order to supply the deficiencies in Black and Belley, the Office Action relies on Synodis, Vemeer, Baffelli and Norling. However, Synodis, Vemeer, Baffelli and Norling do not remedy the deficiencies in Black and Belley.

PATENT
454313-2330

Applicant urges that Synodis does not teach or suggest the present claims because Synodis provides for creams and not pastes. As the art recognizes creams to be different from pastes, Synodis does not teach the present invention. Further, Synodis does not establish a *prima facie* case of obviousness as the publication only provides for creams and provides absolutely no evidence that pastes exhibit equivalent properties.

Synodis provides for creams. These creams comprise vitamin E as a penetrating enhancer with a suitable thickening agent. The fumed silica provided in Synodis is not used in combination with a viscosity modifier to exhibit good physical stability over the paste's shelf life and/or retain the chemical integrity, texture, consistency and viscosity over a wide temperature range with a reduced amount of fumed silica.

In addition, Synodis does not suggest the present paste formulation because there is no evidence that the inventive combination is equivalent in creams and pastes. Synodis does not suggest the inventive combination in pastes, as claimed, because the patent provides no motivation to combine a viscosity modifier as claimed with a fumed silica to exhibit the superior properties of the combination. Also, Synodis teaches that vitamin E is required in all the formulations presented as a penetration enhancer.

Furthermore, as discussed during the interview, Synodis employs heat to make his cream, whereas the ingredients in the instant invention can form a paste without any need to heat. Also, as discussed during the interview, vitamin E can present an impediment to forming a paste as in the instant invention. Also, the present claims recite a COX-2 inhibitor, especially a particular form B of a COX-2 inhibitor, and employ "consisting essentially of" or "consists essentially of" which further distinguish the instant invention from Synodis.

Hence, any fair reading of Synodis is that Synodis, either individually or in any combination, fails to teach or suggest the instant invention, and actually teaches away from the present invention.

Also, Vemeer, either individually or in any fair combination, does not teach or suggest the present invention. As noted in the previous response, Vemeer involves detergent or personal compositions. But, Vemeer does not disclose, suggest or teach a paste with the claimed combination of a viscosity modifier and fumed silica that exhibits good physical stability over the paste's shelf life and retains the chemical integrity, texture, consistency and viscosity over a wide temperature range while reducing the amount of fumed silica, or a paste composition that

PATENT
454313-2330

can be formed without the need for heating. Indeed, as discussed during the interview, Vemeer employs heating, in contrast to the instant invention. Thus, Vemeer does not correct the deficiencies present in Black and Belley, and the other cited documents; and, Vemeer, either individually or in any fair combination, fails to teach or suggest the instant invention.

Baffelli and Norling do not disclose, teach or suggest the present invention because these documents, *inter alia*, do not disclose or suggest a viscosity modifier and a fumed silica. The Office Action asserts that Baffelli provide that paste formulations can contain TiO_2 and fumed silica. Likewise, Norling is cited as allegedly providing a pharmaceutical formulation made with magnesium carbonate, PEG and Triacetin. None of these documents, either individually or in any fair combination, teaches or suggests the claimed combination of a viscosity modifier and fumed silica. Further the documents do not disclose, teach or suggest the claimed combination which provides for increased viscosity while exhibiting good physical stability over the paste's shelf life, maintenance of the chemical integrity, texture, consistency and viscosity over a wide temperature range with a reduced amount of fumed silica, and the ability to prepare the paste without the need for heating. Thus, the cited documents do not teach or suggest the claimed invention.

And again, it is noted that the present claims employ "consists essentially of" or "consisting essentially of" and recite a COX-2 inhibitor. Hence, these terms further distinguish the claimed invention from the multitude of cited documents.

Moreover, even if it were determined that a *prima facie* case of obviousness exists, the data presented in the specification clearly indicate the inventive combination in pastes exhibit superior ability to increase viscosity and maintain good chemical and physical stability. (See Example 1, 11 and 18). Formulations without a viscosity modifier showed significant increase of viscosity after 4 weeks and reduced chemical and physical stability. Moreover, the inventive formulation requires less fumed silica than other formulations.

The data demonstrate that the inventive formulations possess superior viscosity properties. Further, the demonstration during the interview supports a conclusion that the combination of a viscosity modifier and a fumed silica unexpectedly increases the chemical and physical stability of the formulation, as well as its ability to be readily prepared.

Thus, in view of the foregoing, Applicant has rebutted any allegation of *prima facie* obviousness.

PATENT
454313-2330

In sum, reconsideration and withdrawal of the Section 103 rejection are respectfully requested.

If the Examiner maintains the rejection of record with respect to any of the claims, it is requested that he telephones the undersigned before issuing the Advisory Action.

REQUEST FOR INTERVIEW

If any issue remains as an impediment to allowance, a further interview with the Examiner is respectfully requested, prior to issuance of any paper other than a Notice of Allowance; and, the Examiner is respectfully requested to contact the undersigned to arrange a mutually convenient time and manner for such an interview.

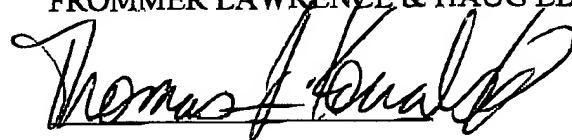
CONCLUSION

In view of the remarks and amendments herewith and those of record, and the matters discussed during the interview, the application is in condition for allowance. Favorable reconsideration of the application and prompt issuance of a Notice of Allowance, or an interview at a very early date with a view to placing the application in condition for allowance, are earnestly solicited. The undersigned looks forward to hearing favorably from the Examiner at an early date.

Respectfully submitted,

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